12-01-99

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Case Docket No. PHA 23,870

THE COMMISSIONER OF PATENTS AND TRADEMARKS, Washington, D.C. 20231

Enclosed for filing is the patent application of Inventor(s):
ALEXANDRE HENON

For: METHOD FOR IN-PROGRESS TELEPHONE CALL TRANSFER BETWEEN A WIRELESS TELEPHONE AND A WIRED TELEPHONE USING A SHORT-RANGE COMMUNICATION CONTROL LINK

ENCLOSED ARE:

[X] Appointment of Associates;
[X] Information Disclosure Statement, Form PTO-1449 and copies of documents listed therein;
[ ] Preliminary Amendment;
[X] Specification (24 Pages of Specification, Claims, & Abstract);
[X] Declaration and Power of Attorney:
(2 Pages of a [X]fully executed [ ]unsigned Declaration);
[X] Drawing (4 sheets of [X]informal [ ]formal sheets);
[ ] Certified copy of application Serial No. ;
[X] Authorization Pursuant to 37 CFR §1.136(a)(3)
[ ] Other: ;
[X] Assignment to PHILIPS ELECTRONICS NORTH AMERICA CORPORATION.

FEE COMPUTATION

CLAIMS AS FILED				
FOR	NUMBER FILED	NUMBER EXTRA	RATE	BASIC FEE - $760.00
Total Claims	19 - 20 =	0	X $18 =	0.00
Independent Claims	5 - 3 =	2	X $78 =	156.00
Multiple Dependent Claims, if any			$260 =	0.00
TOTAL FILING FEE			=	$916.00

Please charge Deposit Account No. 14-1270 in the amount of the total filing fee indicated above, plus any deficiencies. The Commissioner is also hereby authorized to charge any other fees which may be required, except the issue fee, or credit any overpayment to Account No. 14-1270.

[ ]Amend the specification by inserting before the first line as a centered heading --Cross Reference to Related Applications--; and insert below that as a new paragraph --This is a continuation-in-part of application Serial No. , filed , which is herein incorporated by reference--.

CERTIFICATE OF EXPRESS MAILING

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METHOD FOR IN-PROGRESS TELEPHONE CALL TRANSFER BETWEEN A WIRELESS TELEPHONE AND A WIRED TELEPHONE USING A SHORT-RANGE COMMUNICATION CONTROL LINK

BACKGROUND OF THE INVENTION

Technical Field

The present invention relates generally to telecommunications and, in particular, to a method for transferring an in-progress telephone call between wireless and wired telephones operating in proximity to each other.

Description of the Related Art

Low-priced, state-of-the art cellular telephones are now widely available in the consumer marketplace. Indeed, many individuals now use cellular communications for much of their business as well as personal use. Nevertheless, those who use cellular telephones often find themselves cut off or dropped in the middle of a wireless call for any number of reasons, such as battery loss, network connection problems, or the like. Even when the connection between the cellular telephone and the wireless network remains intact, the link quality may be very poor, for example, as the user moves between cells. For these and other reasons, there has developed a need in the art to provide technology for transferring an in-progress telephone call between wireless and wired telephones.

An attempts to address this need in the art is described in U.S. Patent No. 5,390,233 to Jensen et al. This patent describes a wireless network controller that supports telephone calls transfers between a wireless telephone and wired telephone. In this patent, first and second wired communication channels are connected to a telecommunications switch and the wired telephone, respectively. A third wired communication channel is coupled to an RF base station that supports a plurality of concurrent wireless communication channels. An interface circuit coupled to the first, second and third channels switches the connection of the first channel associated with the telecommunications switch between the second and third channels, and thus between the wired and wireless telephones.

Although the technique described in the Jensen et al. patent provides for in-progress call transfer between wireless and wired telephone devices, it requires a complex control circuit and dedicated communication channels. This technique further requires that the wired telephone be in physical range of the cellular base station.

There remains a need in the art to develop improved and more efficient techniques for in-progress call

transfer between wireless and wired telephone devices. This invention addresses this need.

BRIEF SUMMARY OF THE INVENTION

In-progress call transfer between a wireless telephone and a wired telephone is effected using a short-range wireless communication link between the devices. Each of the devices are provisioned to include a short-range radio or infrared transceiver so that the devices can communicate with each other over the short-range wireless communication link, preferably using a given short-range wireless protocol. A preferred short-range wireless protocol is Bluetooth, although any convenient protocol may be used for this purpose. When the wireless telephone's battery is almost exhausted, or for any other reason that the user may desire, the wireless telephone requests the wired telephone's phone number by communicating with the wired telephone over the short-range wireless communication link. Upon receipt of the wired telephone's phone number, the wireless telephone issues a call transfer request to a cellular base station, passing the wired telephone's phone number. The base station and the network then re-route the call to the wired telephone. When the user (or another) places the wired telephone off-hook, the in-progress telephone call is connected to both the wireless telephone and the wired telephone. The user may then disconnect the call from the wireless telephone, for

example, by going on-hook. The telephone call transfer is then complete.

By using the short-range wireless communication link to exchange the telephone number data, the present invention avoids the use of complex interface circuitry, and it much simpler and easier to implement and use as compared to the prior art. As long as the wireless and wired telephones are provisioned with the short-range wireless transceiver and can communicate using the given protocol, in-progress call transfer between the devices is reliable and secure.

The foregoing has outlined some of the more pertinent objects and features of the present invention. These objects and features should be construed to be merely illustrative of some of the more prominent features and applications of the invention. Many other beneficial results can be attained by applying the disclosed invention in a different manner or modifying the invention as will be described. Accordingly, other objects and a fuller understanding of the invention may be had by referring to the following Detailed Description.

BRIEF DESCRIPTION OF THE DRAWINGS

For a more complete understanding of the present invention and the advantages thereof, reference should be made to the following Detailed Description taken in connection with the accompanying drawings in which:

Figure 1 is a high level illustration of the inventive in-progress call transfer technique;

Figure 2 is a flowchart describing the in-progress call transfer technique;

Figure 3 illustrates the architecture of a conventional cellular radio system in which the present invention may be implemented;

Figure 4 is a simplified representation of a wireless device that is provisioned to include a short-range wireless transceiver to facilitate the call transfer method of the present invention;

Figure 5 is a simplified representation of a wired device that is provisioned to include the short-range wireless transceiver to facilitate the inventive call transfer method; and

Figure 6 is a high level block diagram illustrating how the wireless and wired devices are provisioned to facilitate the Bluetooth radio protocol.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Figure 1 is a simplified illustration of how an in-progress telephone call is transferred between a wireless telephone device **100** and a wired or "wireline" telephone device **102** according to the present invention. The wireless telephone device is sometimes referred to herein as a mobile radio handset or a cellular telephone. As illustrated in this drawing, the wireless telephone is connected to a base station **104**, which is part of a cellular telephone network **106**. The wired telephone device **102** is connected to a wireline telephone network **108** in the usual manner. Further details concerning this known telephone system architecture are provided below.

Each telephone device includes a similar short-range wireless transceiver **110** to enable the devices to communicate with each other over a short-range wireless communication link **112**. Preferably, the devices communicate using a given short-range radio link that confirms to a given protocol. In a particularly preferred embodiment, each transceiver **110** implements the Bluetooth protocol as described by the Bluetooth Specification Version 1.0 Draft Foundation, which is incorporated herein by reference. Further details about Bluetooth are available from the site located at www.bluetooth.com. Alternatively, the short-range radio

link may implement any other secure protocol, or the short-range link may instead use infrared communications instead of radio.

By way of brief background, the Bluetooth standard arose out of cooperation between leaders in the telecommunication and computer industries to make a global standard for wireless connectivity. The standard relies on a low power radio link operating at 2.4 Gigahertz. Bluetooth-provisioned devices must be physically close to each other (i.e., within 100 meters) to communicate. Bluetooth includes a robust authentication mechanism that ensures that a Bluetooth device only communicates with other devices for which it is authenticated, and not with any random device that comes into its range. Briefly, to establish the initial link, a user enters a numerical code (sometimes known as a personal identification number or PIN) in the two devices to establish a Bluetooth link for the first time. The PIN can be any number but must be the same on both devices. Once this is done, the devices communicate with each other using the transceivers to verify that the entered PIN numbers match. If so, one device generates unique key information based on a device address. The unique key is based on the device address and not the PIN to provide additional security. This unique key

(generated by one of the devices) then is stored on both devices and used to authenticate the two devices for any subsequent Bluetooth link between them. The Bluetooth standard dictates that the device address for each device must be unique. Therefore, the unique key exchanged on link initialization identifies a unique link and can reliably be used for subsequent authentication when the link is reestablished.

Returning now back to **Figures 1** and **2**, it is assumed that the wireless telephone **100** is in use. As used, this state is referred to as an "in-progress" call. This is step **200** in the flowchart. At step **202**, the user of the wireless telephone **100** identifies the wired telephone **102** that he or she desires the in-progress call to be transferred. The routine then continues at step **204** with the user of the wireless telephone instructing the phone to request the telephone number of the wired telephone. As described above, preferably this request will be made over the short-range wireless communication link **112** that, in the preferred embodiment, implements Bluetooth. Step **204** may be effected by simple user entry of commands via the telephone keypad. If desired, a special "soft" key can be used for this purpose to avoid the parties hearing the normal DTMF keypad tones. A soft key may be located adjacent or within the keypad, with the action

associated therewith programmable with software in a known manner.

At step **206**, the wireless telephone (using its transceiver **110**) sets up a wireless connection with the wired telephone over the short-range wireless communication link **112** and sends a given request message, e.g., PHONE_NUMBER_REQ, requesting the wired telephone's phone number. At step **208**, the wired telephone replies over the communication link **112** with a given reply message, e.g., PHONE_NUMBER_RSP, that identifies the wired telephone's number (e.g., +1(212)123-4567). The routine then continues at step **210** with the wireless telephone sending a given call transfer request message, e.g., CALL_TRANSFER_REQ, to the base station **104**, passing the wired telephone's phone number with the message. The routine then continues at step **212** with the base station **104** and the cellular network **106** re-routing the in-progress call to the wired telephone's phone number. At step **214**, the wireline network **108** establishes a ringing connection to the wired telephone **102**, which is then answered, e.g., by the user or another). At this point, the in-progress telephone call is now connected from its source to both the wireless telephone **100** and the wired telephone **102**. Thus, at step **216**, the user of the

wireless telephone goes on-hook to complete the in-progress call transfer.

Thus, according to the present invention, the mobile radio handset includes a transceiver for conventional cellular communications as well as a short-range radio (or infrared transceiver **110**) for communicating with a similarly-provisioned wired telephone. These transceivers may be separate devices or integrated within a single circuit package. When the mobile phone's battery is almost exhausted, or for another reason (such as the desire to transfer the call to the wired telephone or to a speakerphone associated therewith), the mobile phone requests the wired telephone's phone number and, in effect, routes the wired telephone's number to the cellular network. The cellular network then transfers the call from the mobile telephone to the wired telephone.

Figure 3 illustrates the architecture of a conventional cellular radio system in which the present invention may be implemented. Of course, this environment is merely exemplary. In **Figure 3**, an arbitrary geographic area **300** may be seen as divided into a plurality of contiguous radio coverage areas or cells **302a-n**. Any number of cells may be used. A base station **304** is located in and associated with each of the cells.

As is well known, each of the base stations **304** includes a plurality of channel units, each comprising a transmitter, a receiver, and a controller (not shown). The transmitter and the receiver are sometimes referred to as a cellular transceiver. Typically, each base station is located at the center of its respective cell and is equipped with an omni-directional antenna **306**. As illustrated, each of the base stations is connected by voice and data links **308** to a mobile switching center **310** that, in turn, is connected to the Public Switched Telephone Network **310**, or some other similar facility, e.g., an integrated system digital network (ISDN). The links **308** may comprise twisted wire pairs, coaxial cables, fiber optic cables or microwave radio channels operating in either analog or digital mode.

With further reference to **Figure 3**, a plurality of mobile radio devices **312a-n** may be found within the cells **302**. As is well-known, each of the mobile radio devices includes a transmitter, a receiver, and controller, and a user interface, e.g., a telephone handset. The transmitter and receiver are sometimes referred to as a cellular transceiver. Further, one or more wired telephones **314a-n** are connectable to the PSTN **310** either directly or through known switching architectures, e.g., a central office, a tandem switch, or the like. For

purposes of the inventive call-transfer routine, it is assumed that a given wireline telephone (e.g., telephone **312d**) is in physical proximity to a given wired telephone (e.g., telephone **314g**) and that each of these devices is provisioned with a short-range wireless transceiver. As described above, these devices may then communicate with each other over the short-range wireless communication link **315** between them to exchange commands and data (namely, the wired telephone's number) as has been described.

Figure 4 is a block diagram of an illustrative architecture of a wireless device **400** that may be used in the present invention. The device **400** may be implemented in any convenient form including, without limitation, a mobile telephone, a cellular handset, a personal digital assistant (PDA) or personal computer extended with radio and telephony capability, or the like. The device includes an antenna **402** connected to a duplexer **404**. Speech signals received from the cellular network are amplified by a low noise amplifier **406** and then mixed, in mixer **408**, with signals output from a tunable synthesizer **410**. The output of the mixer **408** is processed through a demodulator **412** to recover the voice signals, which are then passed to a speaker of the headset **414**. Speech signals input via a microphone headset **414** are processed

by a modulator **416**, with the output thereof being mixed, in mixer **418**, with signals from the tunable synthesizer **410**. The output of the mixer **418** is amplified by power amplifier **420** and then supplied to the duplexer **404** for transmission via antenna **402**, in a known manner. The various control circuits are controlled by a software-controlled processor **422** (or other such programmable device), which includes appropriate system memory (RAM) and non-volatile memory (ROM) for storing control programs.

According to the present invention, the wireless device **400** further includes the short-range wireless transceiver **425** for the purposes previously described. Of course, the present invention is not limited to any particular transceiver type or characteristic, except as otherwise described herein.

Figure 5 is a block diagram of an illustrative architecture of a wireline device **500** that may be used in the present invention. The device **500** may be implemented in any convenient form, such as a telephone that offers a handsfree function. Of course, the example device is not meant to limit the present invention, which can be practiced in any type of wired device. The device **500** includes a transmission circuit **502** comprising a hybrid **504**, a receiving amplifier **506**, a transmit amplifier **508**,

and a loudspeaker amplifier **510**. Device **500** also includes a receiving circuit **512** comprising a microphone amplifier **514**, and a duplex controller **516** with a transmit amplifier **518** and a receiving amplifier **520**. The duplex controller **516** monitors the signal and noise on both the transmit and the receive channel to detect which channel contains the largest signal. In one embodiment, the transmission circuit **502** is a Philips Model TEA1096 circuit, and the receiving circuit is a Philips Model TEA1095 circuit. The Model TEA1095 has neither integrated supply nor loudspeaker amplifier, which enables the circuit to be used in applications with external loudspeaker amplifier and external supply, such as cordless telephones and answering machines.

The wired device **500** further includes the short-range wireless transceiver **525** for the purposes previously described. This transceiver is similar to the transceiver **425** that is supported in the wireless device to facilitate the short-range communications protocol.

As noted above, Bluetooth is the preferred communications technique for enabling the devices to transfer commands and data. Bluetooth radio uses a fast acknowledgement and frequency hopping scheme to make the link robust. Devices provisioned under Bluetooth avoid interference from other signals by hopping to a new

frequency after transmitting or receiving a packet. Compared with other systems operating in the same frequency band, the Bluetooth radio typically hops faster and uses shorter packets. This makes Bluetooth radio more robust than other systems.

Figure 6 is a simplified block diagram illustrating how a pair of Bluetooth-provisioned devices authenticate each other. As has been described, each of the devices **602** and **604** include a similar transceiver **606**. These devices further each include a link manager **608**, which is preferably implemented in software that is executed by a processor **610**. The link manager **608** software carries out link setup, authentication, link configuration, and other protocols. It discovers other remote link managers and communicates with them via the Bluetooth Link Manager Protocol (LMP). To perform its service provider role, the link manager **608** uses the services of an underlying link controller **612**. These services include, without limitation, sending and receiving of data, name request, link address inquiries, connection set-up, authentication, link mode negotiation and set-up (data or data/voice), frame type (on a packet-by-packet basis), and the like.

Having thus described my invention, what I claim is set forth in the following claims.

CLAIMS

1. A method of transferring an in-progress telephone call between a wireless device and a wired device, comprising:

establishing a short-range wireless communication link between the wireless and wired devices;

at the wireless device, receiving an identifier that has been transmitted from the wired device to the wireless device over the communication link; and

at the wireless device, transmitting the identifier together with a call transfer request to enable the telephone call to be transferred to the wired device.

2. The method as described in Claim 1 wherein the short-range wireless communication link conforms to a given radio frequency (RF) protocol.

3. The method as described in Claim 2 wherein the given RF protocol is Bluetooth.

4. The method as described in Claim 1 wherein the short-range wireless communication link is an infrared link.

5. The method as described in Claim 1 further including:

at the wireless device, transmitting a request message to the wired device requesting transmission of the identifier.

6. The method as described in Claim 1 further including:

in a network, receiving the identifier and the call transfer request transmitted from the wired device; and

re-routing the in-progress call to the wired device.

7. The method as described in Claim 1 wherein the identifier is a telephone number of the wired telephone.

8. A method of transferring an in-progress telephone call between a wireless device and a wired device, comprising:

establishing a first communication link between the wireless and wired devices when the devices are in physical proximity to each other;

at the wireless device, transmitting a request message to the wired device over the first communication link requesting transmission of an identifier;

at the wireless device, receiving the identifier that has been transmitted from the wired device to the wireless device over the first communication link; and

at the wireless device, transmitting the identifier together with a call transfer request to a network device over a second communication link;

at the network device, receiving the identifier together with the call transfer request and re-routing the in-progress call to the wired device.

9. The method as described in Claim **8** wherein the first communication link is a short-range wireless radio communication link.

10. The method as described in Claim **8** wherein the first communication link is a short-range wireless infrared communication link.

11. The method as described in Claim **8** wherein the identifier is a telephone number of the wired device.

12. The method as described in Claim **8** further including disconnecting the wireless device from the in-progress telephone call following re-routing.

13. The method as described in Claim **8** further including:

having a user of the wireless device initiate the establishing of the first communication link by entering given control commands in the wireless device.

14. A communications system, comprising:

a wireless device having a transceiver;

a wireline device having the transceiver;

a short-range wireless communications link over which the wireless and wireline devices communicate using their respective transceivers; and

means operative in the wireless device for transferring an in-progress telephone call from the wireless device to the wireline device.

15. The communications system as described in Claim **14** wherein the means for transferring comprises:

means for transmitting a request message to the wired device over the communications link requesting transmission of an identifier;

means for receiving the identifier transmitted from the wired device to the wireless device over the communications link; and

means for transmitting the identifier together with a call transfer request to a network device to re-route the in-progress telephone call.

16. The communications system as described in Claim **14** wherein each of the transceivers is provisioned according to a given RF protocol.

17. The communications system as described in Claim **16** wherein the given RF protocol is Bluetooth.

18. A wireless device, comprising:

a processor;

a short-range wireless transceiver;

memory coupled to the processor, tangibly embodying a program of instructions executable by the processor for transferring an in-progress telephone call from the wireless device to a selected wireline device by the following method:

controlling the short-range wireless transceiver to transmit a request message to the wired device over a short-range communications link requesting transmission of an identifier;

controlling the short-range wireless transceiver to receive the identifier transmitted

from the wired device to the wireless device over the short-range communications link; and

transmitting the identifier together with a call transfer request to a given network device to request re-routing of the in-progress telephone call.

19. A wireline device, comprising:

a processor;

a short-range wireless transceiver;

memory coupled to the processor, tangibly embodying a program of instructions executable by the processor for receiving a transfer of an in-progress telephone call from the wireless device by the following method steps:

controlling the short-range wireless transceiver to receive a request message transmitted from the wireless device over a short-range communications link requesting transmission of an identifier; and

controlling the short-range wireless transceiver to transmit the identifier to the wireless device over the short-range communications link.

METHOD FOR IN-PROGRESS TELEPHONE CALL TRANSFER BETWEEN A WIRELESS TELEPHONE AND A WIRED TELEPHONE USING A SHORT-RANGE COMMUNICATION CONTROL LINK

ABSTRACT OF THE DISCLOSURE

In-progress call transfer between a wireless telephone and a wired telephone is effected using a short-range wireless communication link between the devices. Each of the devices are provisioned to include a short-range radio or infrared transceiver so that the devices can communicate with each other over the short-range wireless communication link, preferably using a given short-range wireless protocol. When the wireless telephone's battery is almost exhausted, or for any other reason that the user may desire, the wireless telephone requests the wired telephone's phone number by communicating with the wired telephone over the short-range wireless communication link. Upon receipt of the wired telephone's phone number, the wireless telephone issues a call transfer request to a cellular base station, passing the wired telephone's phone number. The base station and the network then re-route the call to the wired telephone.

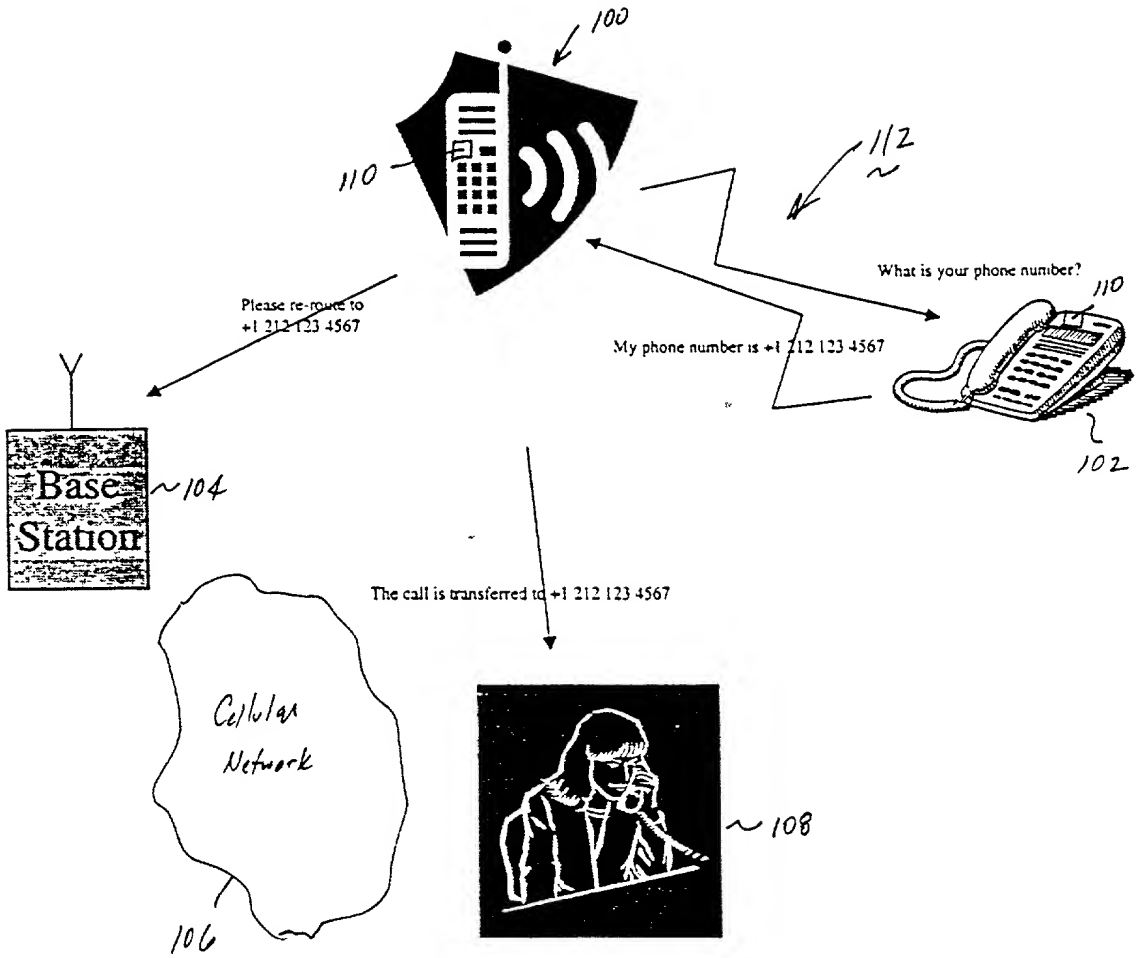
100
110
112
What is your phone number?
110
Please re-route to
+1 212 123 4567
My phone number is +1 212 123 4567
102
Base Station
104
The call is transferred to +1 212 123 4567
Cellular Network
106
108

Figure 1

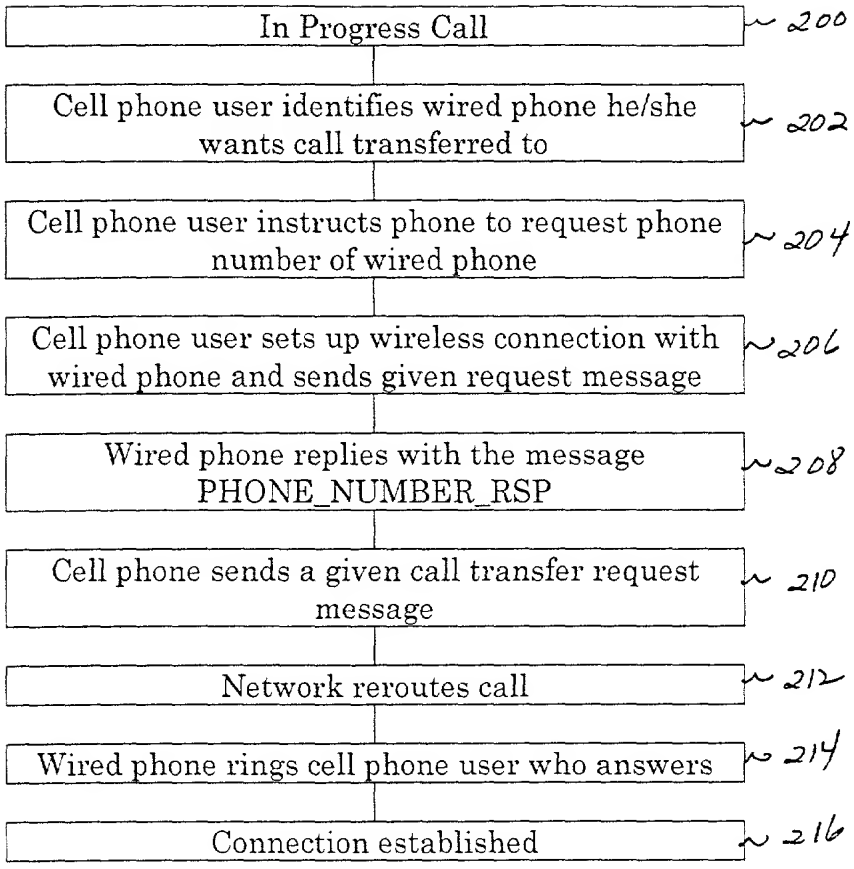
In Progress Call
200
Cell phone user identifies wired phone he/she wants call transferred to
202
Cell phone user instructs phone to request phone number of wired phone
204
Cell phone user sets up wireless connection with wired phone and sends given request message
206
Wired phone replies with the message PHONE_NUMBER_RSP
208
Cell phone sends a given call transfer request message
210
Network reroutes call
212
Wired phone rings cell phone user who answers
214
Connection established
216

FIGURE 2

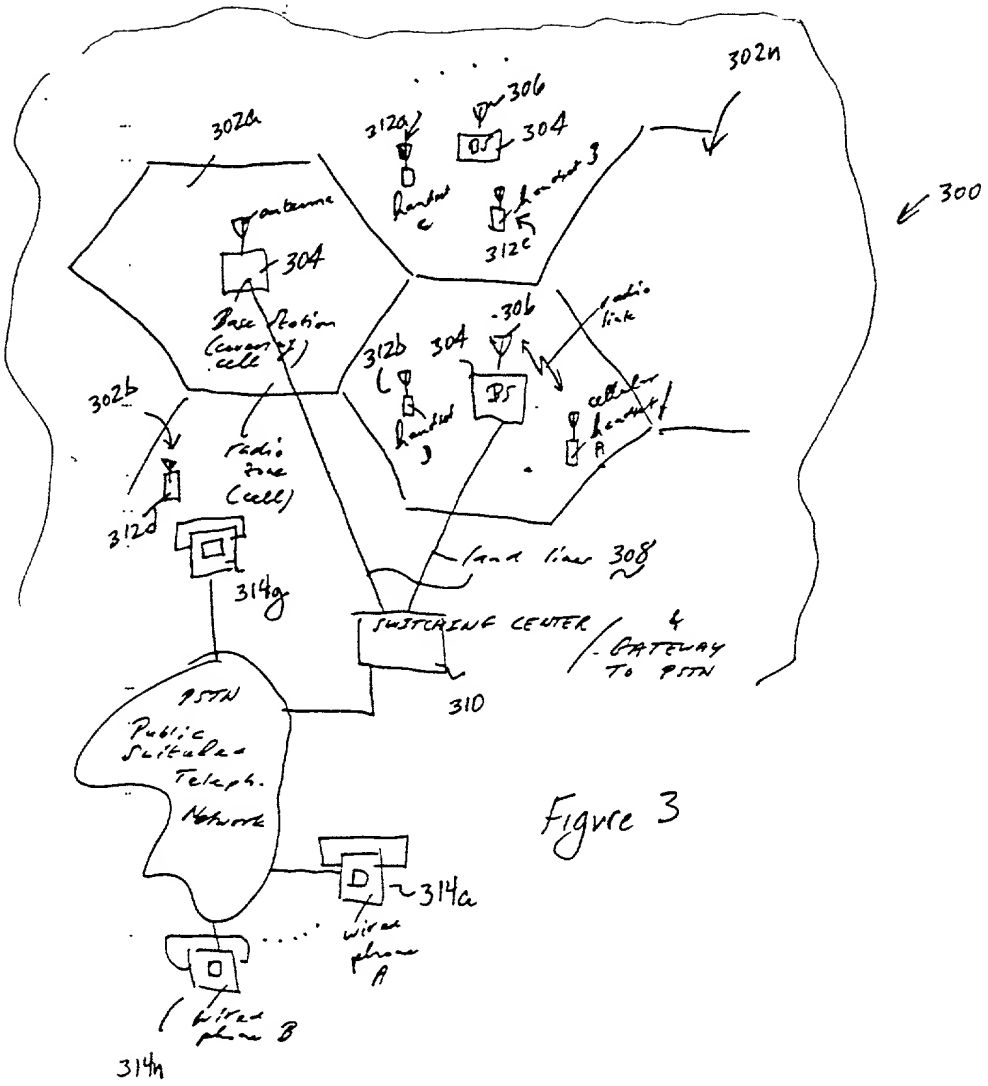

Figure 3

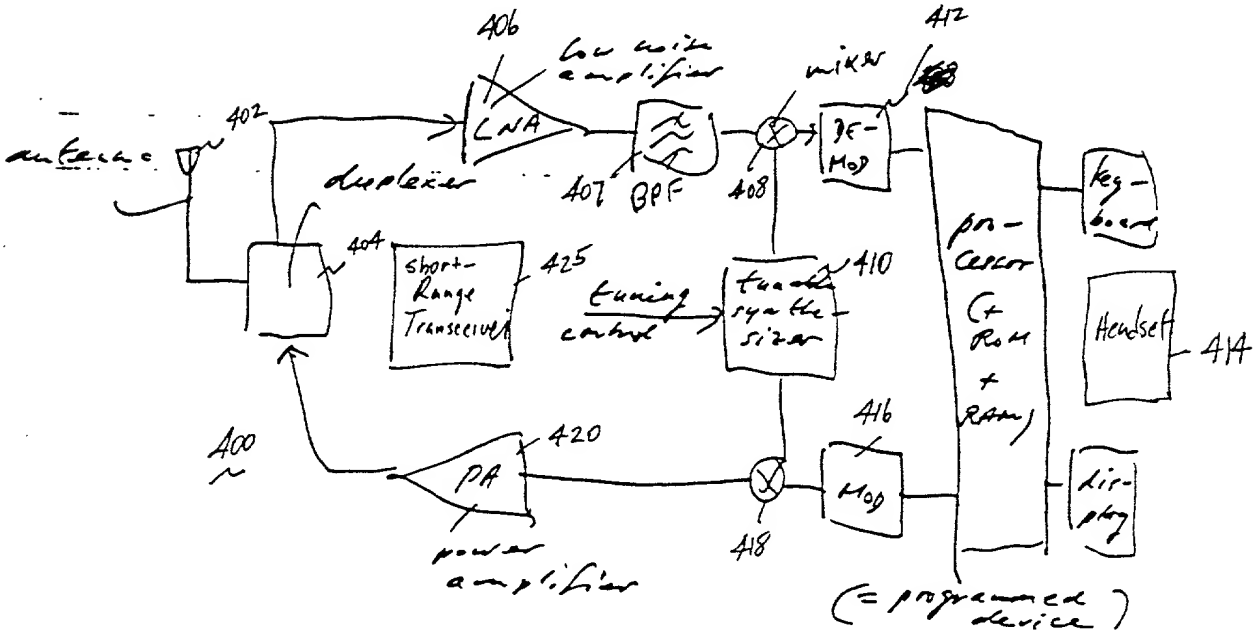

Figure 4

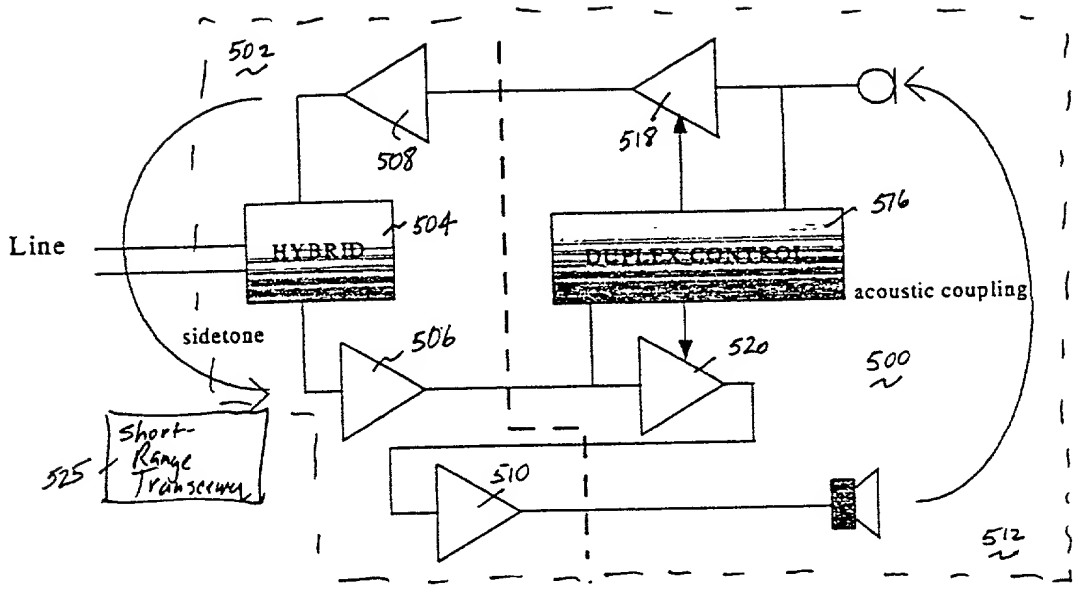

Figure 5

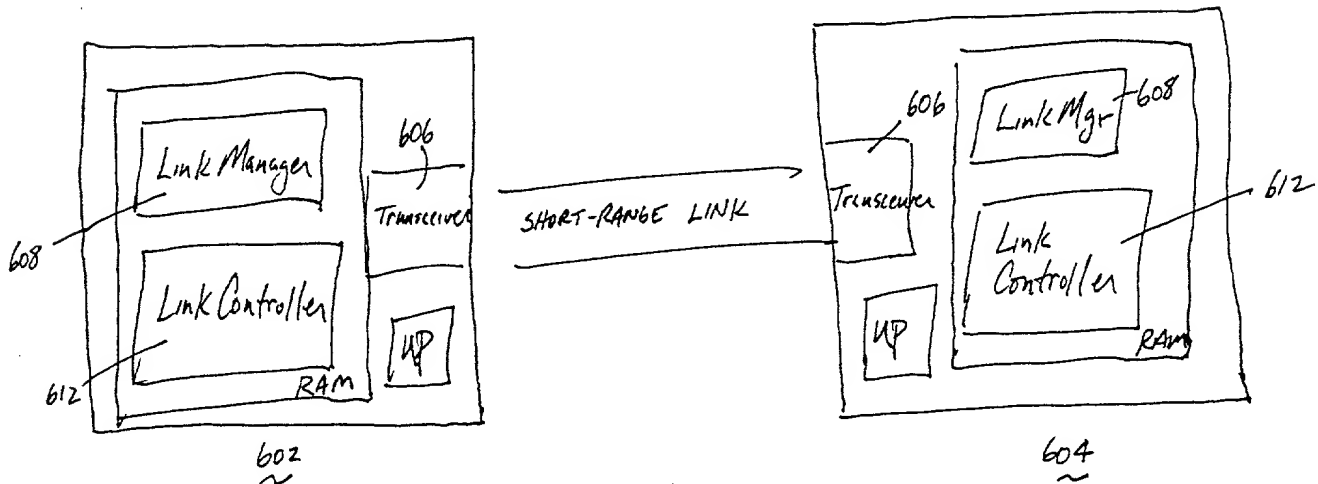

Figure 6

DECLARATION and POWER OF ATTORNEY

Attorney's Docket No.
PHA 23,870

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled **"METHOD FOR IN-PROGRESS TELEPHONE CALL TRANSFER BETWEEN A WIRELESS TELEPHONE AND A WIRED TELEPHONE USING A SHORT-RANGE COMMUNICATION CONTROL LINK"** specification of which (check one)

_X_ is attached hereto.

___ was filed on _____ as Application Serial No. _____ and was amended on _____ _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by the amendment(s) referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulation, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

PRIOR FOREIGN APPLICATION(S)

COUNTRY	APPLICATION NUMBER	DATE OF FILING (DAY, MONTH, YEAR)	PRIORITY CLAIMED UNDER 35 U.S.C. 119

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application (s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35 United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

PRIOR UNITED STATES APPLICATION(S)

APPLICATION SERIAL NUMBER	FILING DATE	STATUS (PATENTED, PENDING, ABANDONED)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

Algy Tamoshunas, Reg. No. 27,677
Jack E. Haken, Reg. No. 26,902

SEND CORRESPONDENCE TO:	DIRECT TELEPHONE CALLS TO:
Corporate Patent Counsel; U.S. Philips Corporation; 580 White Plains Road; Tarrytown, NY 10591	Jack D. Slobod (914) 333-9606

Dated:	12/07/99	INVENTOR'S SIGNATURE:		
Full Name of Inventor	Last Name HENON	FIRST NAME ALEXANDRE	Middle Name	
Residence & Citizenship	City NEWARK	STATE OR FOREIGN COUNTRY CALIFORNIA	Country of Citizenship FRENCH	
Post Office Address	Street 38911 LARKSPUR STREET	CITY NEWARK	State or Country CA	Zip Code 94560

Dated:		INVENTOR'S SIGNATURE:		
Full Name of Inventor	Last Name	FIRST NAME	Middle Name	
Residence & Citizenship	City	STATE OR FOREIGN COUNTRY	Country of Citizenship	
Post Office Address	Street	CITY	State or Country	Zip Code

Dated:		INVENTOR'S SIGNATURE:		
Full Name of Inventor	Last Name	FIRST NAME	Middle Name	
Residence & Citizenship	City	STATE OR FOREIGN COUNTRY	Country of Citizenship	
Post Office Address	Street	CITY	State or Country	Zip Code

Dated:		INVENTOR'S SIGNATURE:		
Full Name of Inventor	Last Name	FIRST NAME	Middle Name	
Residence & Citizenship	City	STATE OR FOREIGN COUNTRY	Country of Citizenship	
Post Office Address	Street	CITY	State or Country	Zip Code

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	Atty. Docket
ALEXANDRE HENON	PHA 23,870
Serial No.	Group Art Unit
Filed: CONCURRENTLY	Examiner:

Title: METHOD FOR IN-PROGRESS TELEPHONE CALL TRANSFER BETWEEN A WIRELESS TELEPHONE AND A WIRED TELEPHONE USING A SHORT RANGE COMMUNICATION CONTROL LINK

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

APPOINTMENT OF ASSOCIATES

Sir:

The undersigned Attorney of Record hereby revokes all prior appointments (if any) of Associate Attorney(s) or Agent(s) in the above-captioned case and appoints:

JACK D. SLOBOD **(Registration No. 26,236)** and
DICRAN HALAJIAN **(Registration No. 39,703)**

c/o U.S. PHILIPS CORPORATION, Intellectual Property Department, 580 White Plains Road, Tarrytown, New York 10591, his Associate Attorney(s)/Agent(s) with all the usual powers to prosecute the above-identified application and any division or continuation thereof, to make alterations and amendments therein, and to transact all business in the Patent and Trademark Office connected therewith.

ALL CORRESPONDENCE CONCERNING THIS APPLICATION AND THE LETTERS PATENT WHEN GRANTED SHOULD BE ADDRESSED TO THE UNDERSIGNED ATTORNEY OF RECORD.

Respectfully,

Jack E. Haken, Reg. 26,902
Attorney of Record

Dated at Tarrytown, New York
this 2nd day of December, 1999.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of — Atty. Docket

ALEXANDRE HENON — PHA 23,870

Serial No. — Group Art Unit

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METHOD FOR IN-PROGRESS TELEPHONE CALL TRANSFER BETWEEN A WIRELESS TELEPHONE AND A WIRED TELEPHONE USING A SHORT RANGE COMMUNICATION CONTROL LINK

Honorable Commissioner of Patents and Trademarks
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AUTHORIZATION PURSUANT TO 37 CFR §1.136(a)(3)
AND TO CHARGE DEPOSIT ACCOUNT

Sir:

The Commissioner is hereby requested and authorized to treat any concurrent or future reply in this application requiring a petition for extension of time for its timely submission, as incorporating a petition for extension of time for the appropriate length of time.

Please charge any additional fees which may now or in the future be required in this application, including extension of time fees, but excluding the issue fee unless explicitly requested to do so, and credit any overpayment, to Deposit Account No. 14-1270.

Respectfully submitted,

By _____
Jack D. Slobod, Reg. 26,236
Attorney
(914) 333-9606

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